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10/811,621	03/29/2004	Chien-Hsueh Shih	67,200-1168	2719

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EXAMINER
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WONG, EDNA

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1795

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**ADVISORY ACTION**

***Response to Amendment***

This is in response to the Amendment After Final dated June 24, 2009 and Supplemental Amendment After Final dated July 1, 2009. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office Action.

***Response to Arguments***

Election/Restrictions

The proposed amended claims **1-2, 4-7, 9, 12-13, 21-24** are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

Since Applicants' election, Claim 1 has been amended as follows:

Previously Amended Claim 1 recited:

***An electrolyte bath***, comprising:  
a metal electroplating electrolyte solution, said electrolyte solution contained in an electrolyte bath container; and  
a composition comprising an organic acid and a non-ionic polymer mixed with said organic acid, said non-ionic polymer selected from the group consisting of an alkoxyated alcohol, an alkoxyated amine, and an alkylphenol alkoxyate;  
wherein said composition is disposed as a suspended layer within said electrolyte solution, said suspended layer spanning said electrolyte bath container, said suspended layer of sufficient dimension to form a wetting layer on a substrate as said substrate is passed through said suspended layer into said electrolyte solution, said electrolyte bath further comprising an anode to carry out said metal electroplating in said electrolyte solution on said substrate comprising said wetting layer.

Previously Amended Claim 1 recited:

***An electrochemical plating system*** comprising:  
a metal electroplating electrolyte solution, said electrolyte solution contained in an electrolyte bath container; and  
a composition comprising an organic acid and a non-ionic polymer mixed with said organic acid said non-ionic polymer selected from the group consisting of an alkoxyated alcohol, an alkoxyated amine, and an alkylphenol alkoxyate;  
wherein said composition consists of a suspended layer within said electrolyte solution, said suspended layer consisting of a continuous layer extending across a dimension of said electrolyte solution in said electrolyte bath container, said suspended layer of sufficient dimension to form a wetting layer on a substrate as said substrate is passed through said suspended layer into said electrolyte solution, said electrochemical plating system further comprising an anode in said electrolyte solution to carry out metal electroplating on said substrate comprising said wetting layer.

Currently Amended Claim 1 recites:

***A method of electroplating a substrate*** comprising:  
providing a metal electroplating electrolyte solution, said electrolyte solution contained in an electrolyte bath container; and  
providing a composition comprising an organic acid and a non-ionic polymer mixed with said organic acid, said non-ionic polymer selected from the group consisting of an alkoxyated alcohol, an alkoxyated amine, and an alkylphenol alkoxyate;  
wherein said composition consists of a suspended layer within said electrolyte solution, said suspended layer consisting of a continuous layer extending across a dimension of said electrolyte solution in said electrolyte bath container, said suspended layer of sufficient dimension to form a wetting layer on a substrate as said substrate is passed through said suspended layer into said electrolyte solution, said electrochemical plating system further comprising an anode in said electrolyte solution to carry out metal electroplating on said substrate comprising said wetting layer;  
passing said substrate through said suspended layer into said electrolyte solution to form said wetting layer on said substrate; and  
performing said metal electroplating on said substrate in said electrolyte solution.

Since applicants have received an action on the merits for the apparatus claims, and this invention has been constructively elected for prosecution on the merits by the Applicants, the proposed amended claims 1-2, 4-7, 9, 12-13, 21-24 directed to a

method of electroplating a substrate are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 102/103

*Bokisa*

I. Claims **1, 4, 21 and 22** have been rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over **Bokisa** (US Patent No. 6,676,823 B1).

The rejection of claims 1, 4, 21 and 22 under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Bokisa is as applied in the Office Actions dated December 4, 2008 and March 24, 2009 and incorporated herein.

The rejection has been maintained for the following reasons:

Applicants state that Bokisa nowhere disclose the instantly claimed process.

In response, expressions relating the apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim (MPEP § 2115).

II. Claims **2 and 5-7** have been rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over **Bokisa** (US Patent No. 6,676,823 B1) as applied to claims 1, 4, 21 and 22 above.

The rejection of claims 2 and 5-7 under 35 U.S.C. 102(e) as anticipated by or, in

the alternative, under 35 U.S.C. 103(a) as obvious over Bokisa (as applied to claims 1, 4, 21 and 22 above is as applied in the Office Action dated March 24, 2009 and incorporated herein. The rejection has been maintained for the reasons as discussed above.

Applicants' remarks have been fully considered but they are not deemed to be persuasive.

**III.** Claims **9, 12-13 and 23-24** have been rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over **Bokisa** (US Patent No. 6,676,823 B1).

The rejection of claims 9, 12-13 and 23-24 under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Bokisa is as applied in the Office Action dated March 24, 2009 and incorporated herein.

Applicants state that Bokisa nowhere disclose the instantly claimed process.

In response, expressions relating the apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim (MPEP § 2115).

*Motoki et al.*

**IV.** Claims **1-2, 4-7 and 21-22** have been rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over **Motoki et**

**al.** (US Patent No. 6,911,138 B2).

The rejection of claims 1-2, 4-7 and 21-22 under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Motoki et al. is as applied in the Office Actions dated December 4, 2008 and March 24, 2009 and incorporated herein. The rejection has been maintained for the following reasons:

Applicants state that Motoki et al. nowhere disclose the instantly claimed process.

In response, expressions relating the apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim (MPEP § 2115).

**V.** Claims **9, 12-13 and 23-24** have been rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over **Motoki et al.** (US Patent No. 6,911,138 B2).

The rejection of claims 9, 12-13 and 23-24 under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Motoki et al. is as applied in the Office Action dated March 24, 2009 and incorporated herein. The rejection has been maintained for the following reasons:

Applicants state that Motoki et al. nowhere disclose the instantly claimed process.

In response, expressions relating the apparatus to contents thereof during an

intended operation are of no significance in determining patentability of the apparatus claim (MPEP § 2115).

**VI.** Claims **1-2, 4-7 and 21-22** have been rejected under 35 U.S.C. 102(a) or (b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over **Applicants' Admitted Prior Art** (AAPA) [specification, page 4, [006]].

The rejection of claims 1-2, 4-7 and 21-22 under 35 U.S.C. 102(a) or (b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Applicants' Admitted Prior Art (AAPA) is as applied in the Office Action dated March 24, 2009 and incorporated herein. The rejection has been maintained for the following reasons:

Applicants alleged admitted prior art nowhere discloses the instantly claimed process.

In response, expressions relating the apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim (MPEP § 2115).

**VII.** Claims **9, 12-13 and 23-24** have been rejected under 35 U.S.C. 102(a) or (b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over **Applicants' Admitted Prior Art** (AAPA) [specification, page 4, [006]].

The rejection of claims 9, 12-13 and 23-24 under 35 U.S.C. 102(a) or (b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over

Applicants' Admitted Prior Art (AAPA) is as applied in the Office Action dated March 24, 2009 and incorporated herein. The rejection has been maintained for the following reasons:

Applicants alleged admitted prior art nowhere discloses the instantly claimed process.

In response, expressions relating the apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim (MPEP § 2115).

***RE: REMARKS***

Applicants state that the Examiner is requested to waive election and permit shift on the grounds that such shift will reduce additional work and expense by both the Applicants and the USPTO and will simplify the issues.

In response, shifting the invention from an apparatus to a method will create more work for the Examiner and will not simplify the issues because:

(i) The inventions require a different field of search (for example, searching different classes/subclasses or electronic resources, or employing different search queries).

Shifting the apparatus claims to method claims would force the Examiner to reopen prosecution on the merits of the claims and do a new search in a different field.

(ii) The prior art applicable to one invention would not likely be applicable to



another invention.

Shifting the apparatus claims to method claims would force the Examiner to reopen prosecution on the merits of the claims and write an entire new art rejection based on new prior art.

(iii) Applicants' election of Group I, claims **1-2, 4-7, 9, 12-13 and 21-24** (electrolyte bath/electrochemical plating system), in the reply filed on April 9, 2008, was without traverse because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement. Accordingly, claims **17-20 and 25-26** (method) were withdrawn from consideration as being directed to a non-elected invention. Claims 17-20 and 25-26 are now cancelled claims.

Therefore, the Examiner will not waive the election and will not permit a shift in the invention.

Applicants state that the Examiner has held that the invention is in the process rather than the product by her refusal to give patentable weight to the important aspect of Applicants' invention, i.e., the arrangement of the suspended wetting layer within an electrolyte bath/apparatus. Therefore, the shift to a process appears to be a permissible shift under USPTO MPEP guidelines.

In response, the shift to a process is not a permissible shift because the invention was never held to be in the process. The Examiner's conclusion that the suspended wetting layer within the electrolyte bath/apparatus was immaterial to the structure of the

apparatus was not a refusal to give patentable weight to an important aspect of Applicants' invention, but a determination that this claim limitation had no patentable weight in the electrolyte bath/apparatus.

Therefore, the Examiner will not waive the election and will not permit a shift in the invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to EDNA WONG whose telephone number is (571) 272-1349. The examiner can normally be reached on Mon-Fri 7:30 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Edna Wong/  
Primary Examiner  
Art Unit 1795

EW  
July 3, 2009